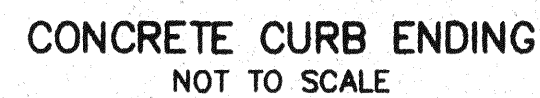
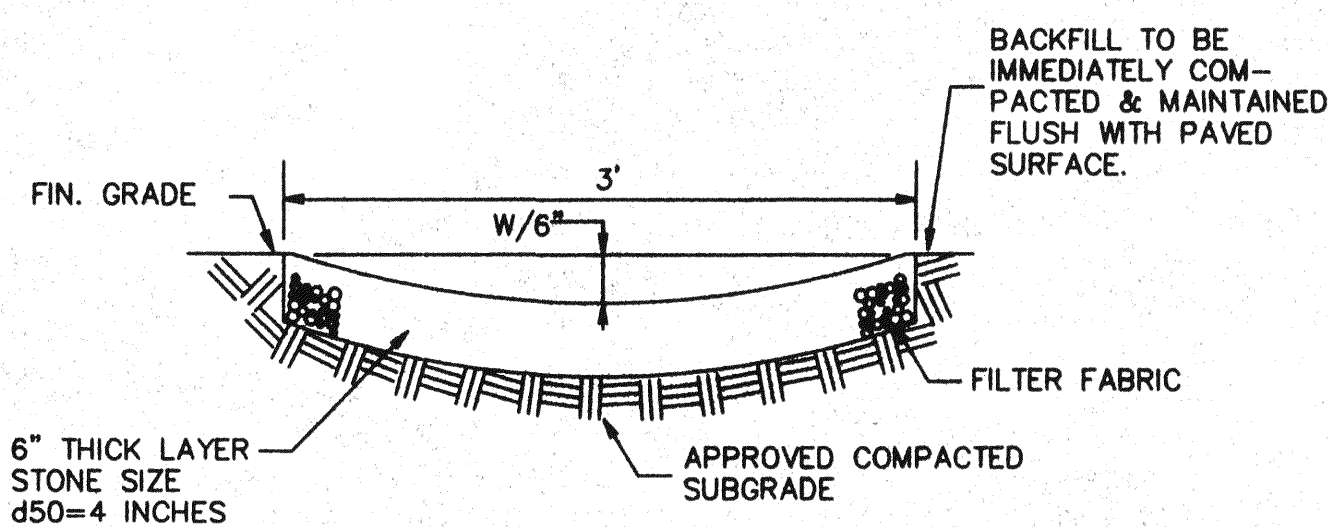


- NOTES
1. APRON LINING MAY BE RIPRAP, GROUTED RIPRAP, OR CONCRETE.
 2. L_a IS THE LENGTH OF THE RIPRAP APRON.
 3. W IS THE WITH OF THE RIP-RAP APRON.
 4. $d = 1.5$ TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6 INCHES.

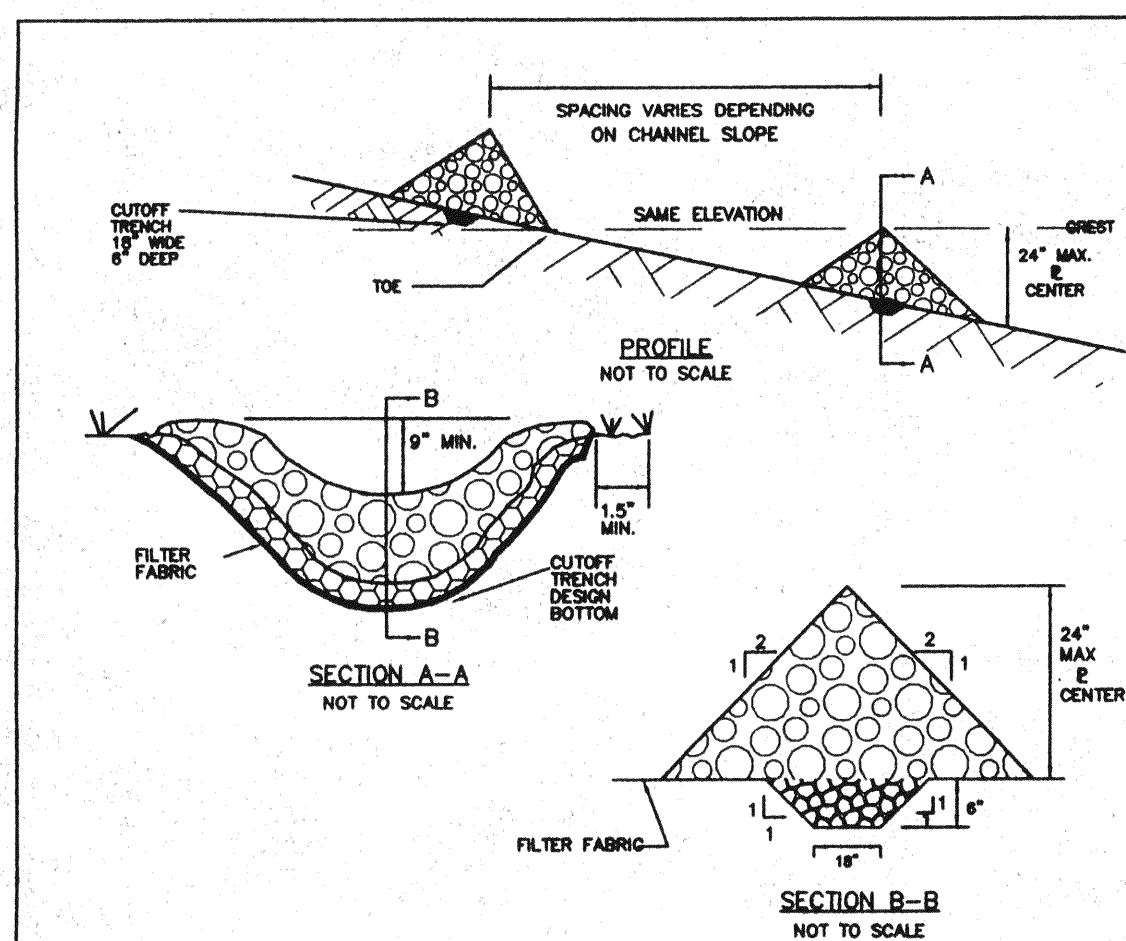


10



ENERGY DISSIPATOR
NOT TO SCALE

9

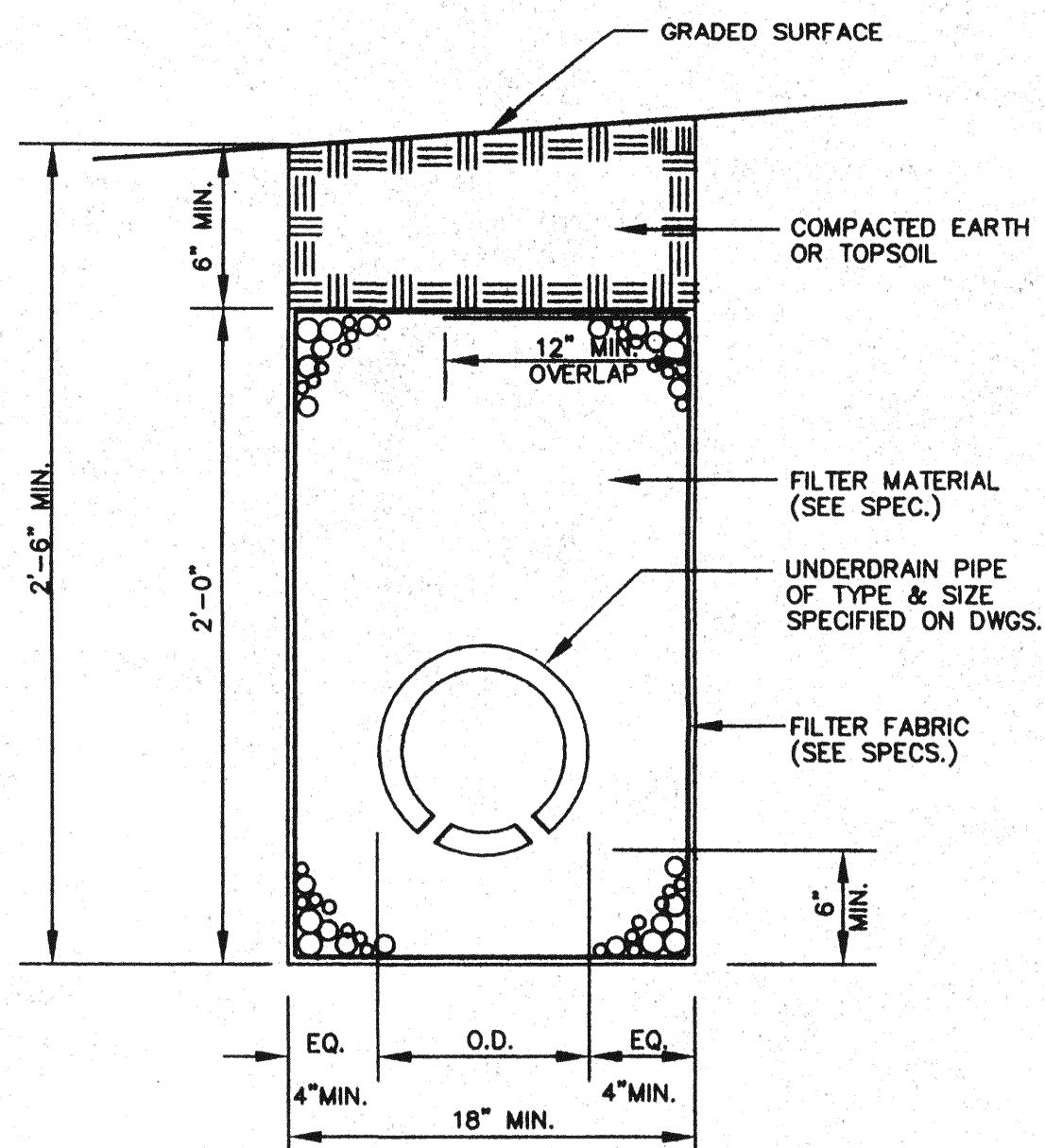


CONSTRUCTION SPECIFICATIONS

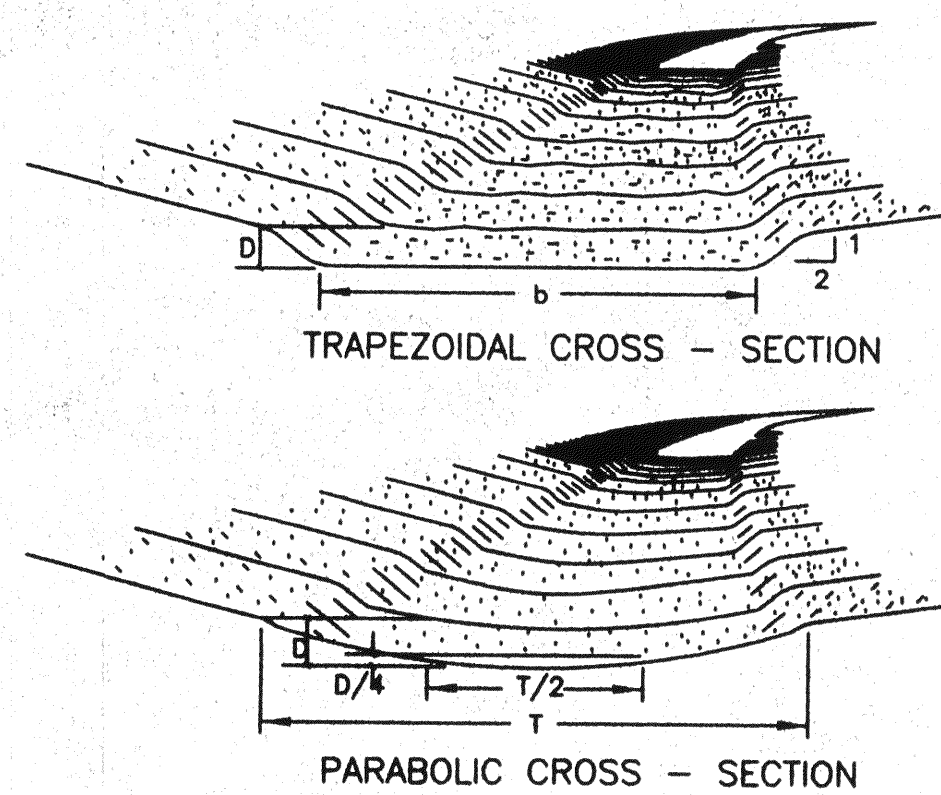
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES. GRADES AND LOCATIONS SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAMS TO ASSUME THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINEAR AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

STONE DITCH
NOT TO SCALE

11



Vegetated Channel



INSTALLATION NOTES

1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.
2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPIDE NORMAL FLOW.
3. FILLS SHALL BE COMPACTED AS NEEDED TO PREVENT UNEQUAL SETTLEMENT THAT WOULD CAUSE DAMAGE IN THE COMPLETED WATERWAY.
4. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
5. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARD AND SPECIFICATIONS FOR CRITICAL AREA SEEDING, MULCHING AND NETTING.
 - A. FOR DESIGN VELOCITIES OF LESS THAN 3.5 FT. PER SEC., SEEDING AND MULCHING MAY BE USED FOR THE ESTABLISHMENT OF THE VEGETATION. IT IS RECOMMENDED THAT CONDITIONS PERMIT TEMPORARY DIVERSIONS OR OTHERS MEANS SHOULD BE USED TO PREVENT WATER FROM ENTERING THE WATERWAY DURING THE ESTABLISHMENT OF THE VEGETATION.
 - B. FOR DESIGN VELOCITIES OF MORE THAN 3.5 FT. PER SEC., THE WATERWAY SHALL BE STABILIZED WITH SOD, WITH SEEDING PROTECTED BY JUTE MESH, AND WITH SEEDING AND MULCHING TO INCLUDE TEMPORARY DIVERSION OF THE WATER UNTIL THE VEGETATION IS ESTABLISHED.

GRASSED SWALE
NOT TO SCALE

12

IMPROVEMENT NOTES

- A. GENERAL
 - 1. EXISTING TOPOGRAPHIC AND UTILITY INFORMATION TAKEN FROM SURVEY PREPARED BY SUNEY ASSOCIATES, LAND SURVEYORS, BREWSTER, NY.
 - 2. THE CONTRACTOR SHALL VERIFY THE EXACT SIZE, LOCATION, DEPTH AND INVERT OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF WORK PRIOR TO COMMENCING HIS OPERATIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER FOR RESOLUTION.
 - 3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES 72 HOURS PRIOR TO THE START OF HIS OPERATIONS AND SHALL COMPLY WITH THE LATEST INDUSTRIAL CODE RULE 53 REGULATIONS.
- B. GRADING NOTES
 - 1. ALL LANDSCAPED AREAS AND CURB ISLANDS SHALL RECEIVE A MINIMUM OF 4" OF TOPSOIL.
 - 2. ALL UTILITY STRUCTURE CASTINGS SHALL BE ADJUSTED AS NECESSARY TO BE FLUSH WITH PROPOSED FINISHED GRADE.
 - 3. PARKING AND LOADING AREAS SHALL BE COMPACTED TO NOT LESS THAN NINETY-TWO (92) PERCENT MODIFIED PROCTOR FOR COHESION-LESS SOIL MATERIAL AND NINETY (90) PERCENT MODIFIED PROCTOR FOR COHESIVE SOIL MATERIAL IN ACCORDANCE WITH ASTM D 1557.
 - 4. EMBANKMENT SLOPES SHALL BE AS FOLLOWS:
 - a. DRAINAGE BASIN SLOPES SHALL BE 3 HORIZONTAL TO 1 VERTICAL.
 - b. ALL OTHER SLOPES SHALL BE 2.5 HORIZONTAL TO 1 VERTICAL.
- C. UTILITY NOTE
 - 1. GENERAL
 - a. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITY INFORMATION AND REPORT ANY DISCREPANCIES TO THE SITE ENGINEER FOR RESOLUTION.
 - 2. STORM MAINS
 - a. ALL STCM DRAINS SHALL BE CONSTRUCTED OF SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (EPE) OR APPROVED EQUAL.
 - b. PRECAST CONCRETE DRAINAGE STRUCTURES SHALL BE UTILIZED IN THE CONSTRUCTION OF THE STCM DRAINAGE SYSTEM AND SHALL CONFORM TO ASTM C478 FOR MANHOLES AND C913 FOR INKETS.
- 3. WATER MAINS
 - a. ALL STCM DRAINS AND SANITARY SEWERS THAT CROSS WATER MAINS AND DO NOT MEET THE REQUIRE VERTICAL OR HORIZONTAL SEPARATION AS PER NEW YORK STATE DEPARTMENT OF HEALTH BULLETIN NO. 42, "RECOMMENDED STANDARDS FOR WATER WORKS", 1992 EDITION, PAR 55, SHALL BE CONSTRUCTED OF APPROVED PRESSURE PIPE AND SHALL REQUIRE INDIVIDUAL APPROVAL FROM THE DEPARTMENT OF HEALTH.

SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH EROSION AND SEDIMENT CONTROL, WESTCHESTER COUNTY BEST MANAGEMENT PRACTICES DATED DECEMBER 1991; REDUCING THE IMPACTS OF STORMWATER RUNOFF FROM NEW DEVELOPMENTS (REVISED JANUARY 1992) AND NEW YORK GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL (SOIL AND WATER CONSERVATION SOCIETY 1971).
2. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE SCHEDULE.
3. ANY DISTURBED AREAS THAT ARE LEFT EXPOSED FOR MORE THAN 30 DAYS, AND ARE NOT ALREADY UNDER CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. ALL DISTURBED AREAS THAT WILL NOT RECEIVE PERMANENT LANDSCAPING PRIOR TO NOVEMBER 15 SHALL RECEIVE TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, DISTURBED AREAS SHALL BE MULCHED WITH STRAW, OR EQUIVALENT TEMPORARY SEEDING SHALL BE DONE IN ACCORDANCE WITH WESTCHESTER COUNTY STANDARDS, AS FOLLOWS:
 - o FERTILIZER: FERTILIZER SHALL BE APPLIED AT THE RATE OF 10-LBS/1000 S.F. OR 400 LBS/ACRE, USING 10-10-10 OR EQUIVALENT.
 - o SEED: ANNUAL RYEGRASS APPLIED AT THE RATE OF 20 LBS/ACRE, OR OTHER SELECT MIXTURE DESCRIBED IN WESTCHESTER COUNTY BEST MANAGEMENT PRACTICES MANUAL.
 - o MULCH: SALT HAY OR SMALL GRAIN STRAW APPLIED AT A RATE OF 90-LBS/1000 S.F. OR 2 TONS/ACRE, TO BE APPLIED AND ANCHORED ACCORDING TO WESTCHESTER COUNTY STANDARDS.
4. ANY GRADED AREAS NOT SUBJECT TO FURTHER DISTURBANCE OR CONSTRUCTION TRAFFIC SHALL, WITHIN 10 DAYS OF FINAL GRADING, RECEIVE PERMANENT VEGETATIVE COVER IN COMBINATION WITH A SUITABLE MULCH AS FOLLOWS:
 - o FERTILIZER: FERTILIZER APPLIED AT THE RATE OF 14-LBS/1000 S.F. USING 10-6-4 OR EQUIVALENT. SELECT MIXTURE DESCRIBED IN WESTCHESTER COUNTY BEST MANAGEMENT PRACTICES MANUAL.
 - o SEED MIXTURE: TO BE PLANTED BETWEEN APRIL 1 AND MAY 15, OR BETWEEN APRIL 15 AND OCTOBER 15.
 - o MULCH: SALT HAY OR SMALL GRAIN STRAW APPLIED AT A RATE OF 90-LBS/1000 S.F. OR 2 TONS/ACRE, TO BE APPLIED AND ANCHORED ACCORDING TO WESTCHESTER COUNTY STANDARDS.
5. CUT OR FILL SLOPES STEEPER THAN 3H TO 1V SHALL BE STABILIZED IMMEDIATELY AFTER GRADING. ALL CUT SLOPES 2 TO 1V OR STEEPER SHALL RECEIVE AN EROSION CONTROL FABRIC/NETTING.
6. PAVED ROADWAYS SHALL BE KEPT CLEAN AT ALL TIMES.
7. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
8. ALL STORM DRAINAGE OUTLETS SHALL BE STABILIZED, AS REQUIRED, BEFORE THE DISCHARGE POINTS BECOME OPERATIONAL.
9. CONSTRUCTION FENCING SHALL BE PROVIDED, AS REQUIRED BY THE OWNER'S FIELD REPRESENTATIVE, TO PROTECT EXISTING TREES TO REMAIN AND OTHER SENSITIVE AREAS.
10. IF FOR ANY REASON THE CONSTRUCTION IS HALTED FOR PROTRACTED PERIODS, THE CONTRACTOR SHALL STABILIZE THE SELECT MATERIAL BY HYDRO-SEED OR OTHER MEANS, TO THE SATISFACTION OF THE ENGINEER FOR ALL AREAS DENUDE OF VEGETATION.
11. STORM WATER FROM DISTURBED AREAS MUST BE PASSED THROUGH A HAY BALE BARRIER BEFORE DISCHARGE BEYOND DISTURBED AREAS OR DISCHARGED INTO INLETS OR OTHER DRAINAGE SYSTEMS.
12. DUST CONTROL - WATER SHALL BE APPLIED BY SPRINKLING OR WATER TRUCK DURING GRADING OPERATIONS TO MINIMIZE SEDIMENT TRANSPORT AND MAINTAIN ACCEPTABLE AIR QUALITY CONDITIONS. REPETITIVE TREATMENTS SHALL BE DONE AS NEEDED UNTIL GRADES ARE STABILIZED.
13. THE CONTRACTOR SHALL INSPECT THE EFFECTIVENESS AND CONDITION OF EROSION CONTROL DEVICES DURING STORM EVENTS, AFTER EACH RAINFALL OF ONE-INCH MAGNITUDE OR GREATER, PRIOR TO WEEKENDS AND FORECASTED STORM EVENTS.
14. THE CONTRACTOR SHALL REPAIR OR REPLACE DAMAGED EROSION CONTROL DEVICE IMMEDIATELY, BUT IN NO CASE, MORE THAN FOUR HOURS AFTER OBSERVING SUCH DEFICIENCIES.
15. THE CONTRACTOR SHALL BE PREPARED TO IMPLEMENT INTERIM DRAINAGE CONTROLS AND EROSION CONTROL MEASURES AS MAY BE NECESSARY DURING THE COURSE OF CONSTRUCTION.
16. THE CONTRACTOR SHALL MAKE AVAILABLE ON SITE ALL EQUIPMENT, MATERIALS AND LABOR NECESSARY TO EFFECT EMERGENCY EROSION CONTROL AND DRAINAGE IMPROVEMENTS WITHIN FOUR HOURS OF ANY IMPENDING EMERGENCY SITUATION.
17. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL FINAL ACCEPTANCE OF THE SITE WORK BY THE OWNER. UPON CERTIFICATION OF FINAL ACCEPTANCE, THE OWNER WILL ASSUME RESPONSIBILITY FOR THE CONTINUED MAINTENANCE OF PERMANENT SOIL EROSION AND SEDIMENTATION CONTROL MEASURES.
18. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED AT THE DIRECTION OF THE TOWN ENGINEER OR SITE ENGINEER TO MINIMIZE THE POTENTIAL FOR ONSITE OR OFFSITE EROSION PROBLEMS THAT OCCUR DURING CONSTRUCTION.
19. THE CONTRACTOR SHALL ALTER EROSION CONTROL MEASURES ON AN AS NEEDED BASIS, AS DIRECTED BY THE SITE CONSTRUCTION INSPECTORS AND/OR THE SITE ENGINEER.
20. THE WESTCHESTER COUNTY SOIL AND WATER CONSERVATION DISTRICT, TOWN OF ORLANDO OR THE TOWN ENGINEER SHALL REQUEST ADDITIONAL MEASURES TO MINIMIZE EROSION PROBLEMS THAT MAY OCCUR DURING CONSTRUCTION.

CONSTRUCTION SEQUENCE

1. STAGING AREA SET-UP
INSTALL SEDIMENT BARRIERS IN DISTURBED AREAS; STABILIZE CONSTRUCTION ACCESS ROAD AND AROUND PROTECTIVE FENCING AROUND TREES AND BUTTER FLIES. IMPLEMENT DUST CONTROL MEASURES AS REQUIRED.
2. CLEARING AND GRUBBING, TOPSOIL, STRIPPING AND STOCKPILING
PRIOR TO CLEARING THE SITE, THE LIMIT OF CLEARING AND TREE PROTECTION SHALL BE REVIEWED AND APPROVED BY TOWN OFFICIALS. INSTALL SEDIMENT BARRIERS IN DISTURBED AREAS. IMPLEMENT DUST CONTROL MEASURES AS REQUIRED.
3. ROUGH GRADING; PARKING AND LOADING AREA GRADING (INCLUDING RETAINING WALL) INSTALLATION OF STORM DRAINS. STABILIZE WITH GRAVEL AND ASPHALT BASE COURSE.
INSTALL TEMPORARY DIVERSIONS. ESTABLISH TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS AS REQUIRED AND PERMANENT VEGETATIVE COVER IN AREAS OF NO FURTHER DISTURBANCE. IMPLEMENT DUST CONTROL MEASURES AS REQUIRED.
4. FINE GRADING
ESTABLISH PERMANENT VEGETATIVE COVER IN AREAS OF NO FURTHER DISTURBANCE. IMPLEMENT DUST CONTROL MEASURES AS REQUIRED.
5. MISCELLANEOUS SITE WORK INSTALLATION (LANDSCAPING)
INSTALL FINAL LANDSCAPING AND ESTABLISH PERMANENT VEGETATIVE COVER IN REMAINING DISTURBED AREAS AND IN TEMPORARY VEGETATIVE COVER AREAS. IMPLEMENT DUST CONTROL MEASURES AS REQUIRED.
6. CLEAN-UP
REMOVE SEDIMENT BARRIERS AFTER ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.

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534 FURNACE DOCK ROAD

AMENDED SITE PLAN APPROVAL
Town of Cortlandt, NY

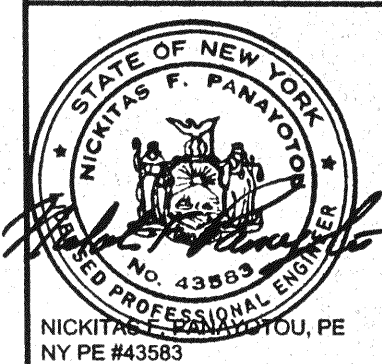
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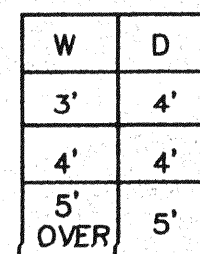
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